

**Amendments to the Drawings:**

The drawing sheet attached in connection with the above-identified application containing Figure 1 is being presented as a new formal drawing sheet to be substituted for the previously submitted drawing sheet. The drawing Figure 1 has been amended. Appended to this amendment is an annotated copy of the previous drawing sheet which has been marked to show changes presented in the replacement sheet of the drawing.

The specific changes which have been made to Figure 1 is to add reference numeral 3'.

## **REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

The specification has been amended on pages 1, 2, 6, and 7. Applicant respectfully submits that the disclosure of Applicant's application provides support for the amendments to the specification. For example, at least page 5, lines 19-22, provide support for the amendments to page 7 of the specification.

Claim 2 has been cancelled.

New claims 18-20 have been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier. Applicant respectfully submits that the disclosure of Applicant's application provides support for the amendments to the claims. For example, at least page 8, line 31, to page 9, line 5, of Applicant's specification and Figures 5a-5d provide support for new claims 18-20.

After amending the claims as set forth above, claims 1 and 3-20 are now pending in this application. Claims 4, 5, 8, 11, and 17 have been withdrawn.

### **Information Disclosure Statement**

Applicant notes that an Information Disclosure Statement and PTO/SB/08 form were submitted on May 25, 2010. Applicant respectfully requests that a signed and initialed copy of the PTO/SB/08 form be provided with the next Office communication.

### **Drawing Objection**

The drawings are objected to for not showing every feature of claim 9. Applicant respectfully submits that the amendments to the drawings render this objection moot.

Reconsideration and withdrawal of this objection is respectfully requested.

**Rejection under 35 U.S.C. § 112**

Claims 6 and 12 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicant respectfully submits that the amendments to the claims render this rejection moot. Reconsideration and withdrawal of this rejection is respectfully requested.

**Rejection under 35 U.S.C. § 102**

Claims 1-3, 6, 7, 10 and 12-16 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 3,311,166 to Southam (hereafter "Southam"). This rejection is respectfully traversed.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See generally MPEP § 2131.

Southam discloses a heat exchanger including heat exchanger units 33 stacked together, with each unit 33 including a rectangular duct 30 with walls 34, 35, 36 forming an internal passage 40. See Southam at col. 3, lines 11-17. The internal passage 40 includes an internal corrugation 37 and the outer surfaces of the top and bottom walls 34, 36 can have external corrugations 38, 39 attached to them. See Southam at col. 3, lines 17-29.

Southam discloses that the external corrugations 38, 39 extend substantially the width of the duct 30 but for only a predetermined portion of the length of the duct 30 so that flat land areas 45 are provided beyond the ends of the corrugations 38, 39, which in turn form headers 44 for external flow passages 43, 46. See Southam at col. 3, lines 35-43, and Figures 2-4.

However, Southam does not disclose a heat exchanger for motor vehicles comprising a housing, and at least one tube arranged in the housing, wherein structures are provided in a

region between the tubes and the housing and between individual tubes, wherein the structures are formed from sheet-metal structures arranged between the tubes and the housing and between the individual tubes, as recited in amended claim 1. Claims 3, 6, 7, 10, and 12-16 depend from claim 1.

The Office appears to suggest that the external corrugations 38, 39 of Southam serve as structures, as recited in amended claim 1. However, Southam does not disclose that the external corrugations 38, 39 are “sheet-metal structures,” as recited in amended claim 1. Southam does not disclose that the external corrugations 38, 39 are “sheet-metal structures,” as recited in amended claim 1.

For at least these reasons, Southam does not anticipate claims 1, 3, 6, 7, 10, and 12-16 because Southam does not disclose all of the features of claim 1. Reconsideration and withdrawal of this rejection is respectfully requested.

#### **Rejection under 35 U.S.C. § 103**

Claim 9 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Southam in view of U.S. Patent No. 6,488,079 to Zifferer (hereafter “Zifferer”). Zifferer fails to remedy the deficiencies of Southam discussed above in regard to independent claim 1, from which claim 9 depends. Reconsideration and withdrawal of this rejection is respectfully requested.

#### **New Claims**

New claims 18-20 have been added. Claims 18-20 depend from claim 1 and are allowable over the prior art for at least the reasons discussed above and for their respective additional recitations.

Claim 19 further recites “wherein the structures at least in part have an inhomogeneous structure such that the structures vary in at least one of shape, orientation, and distribution of the structures across the at least one tube in a direction transverse to a flow direction along a length of the heat exchanger.” Claim 20 depends from claim 19.

The Office suggests on page 4 of the Office Action that because Southam discloses the external corrugations 38, 39 extend for only a predetermined portion of the length of the duct 30 so that flat land areas 45 are provided beyond the ends of the corrugations 38, 39 (see Southam at col. 3, lines 35-43, and Figures 2-4) that the external corrugations 38, 39 have an inhomogeneous structure. Although Applicant does not agree with this, the external corrugations 38, 39 of Southam do not have an inhomogeneous structure such that the structures vary in at least one of shape, orientation, and distribution of the structures across the at least one tube in a direction transverse to a flow direction along a length of the heat exchanger, as recited in claim 19.

As explained in col. 3, lines 35-43, of Southam, the external corrugations 38, 39 extend for a predetermined length of the duct 30 so that a flat land area 45 is provided, as shown in Figure 2 of Southam. Because of the ends of the external corrugations 38, 39 line up across the width of the heat exchanger, as shown in Figure 2 of Southam, in a direction transverse to a flow direction along a length of the heat exchanger, the external corrugations 38, 39 of Southam do not provide an inhomogeneous structure, as recited in claim 19.

### **Conclusion**

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith,

Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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